Via ECFS

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, SW Washington, DC 20554

> Re: Ex Parte Filing of the American Cable Association and Wireless Internet Service Providers Association on the Connect America Fund, WC Docket No. 10-90

Dear Ms. Dortch:

On December 17, 2015, the American Cable Association ("ACA") and the Wireless Internet Service Providers Association ("WISPA") filed an *ex parte* letter expressing concerns that two financial qualification requirements the Commission is considering for the Connect America Fund ("CAF") Phase II competitive bidding process will deter, if not preclude, smaller experienced service providers ("SESPs")¹ from participating, undercutting the Commission's objective to bring fixed broadband service to unserved areas cost effectively.² In regard to the Commission's proposal that applicants produce audited financials, ACA and WISPA explained that such a requirement would burden SESPs because many of these entities have not historically needed audited financials and the time and cost required to produce them are significant. ACA and WISPA proposed instead that SESPs should meet pre-auction financial qualifications by providing a deposit of \$25,000 and then they should file audited financials within one year following the auction if they are a winning bidder.³

The Commission also is proposing that a winning bidder submit a Letter of Credit ("LoC") from a "top 100 bank" that has an investment-grade credit rating and that is insured by the Federal Deposit Insurance Corporation ("FDIC") or the Farm Credit System Insurance Corporation ("FCSIC"). ACA and WISPA agreed that a winning bidder should submit a LoC, but they explained in their *ex parte* letter that the Commission's criteria for identifying banks eligible to issue a LoC would severely limit the pool of eligible banks that SESPs could access

A SESP would be defined as an entity with fewer than 25,000 broadband connections as reported on its most recent Form 477.

See Letter from Ross L. Lieberman, American Cable Association, and Stephen E. Coran, Wireless Internet Service Providers Association to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 (Dec. 17, 2015).

To the extent the Commission is not prepared to embrace its proposal, ACA and WISPA do not oppose a rule that would, in lieu of a deposit, impose a maximum forfeiture of no more than \$25,000 on a winning SESP that fails to submit its audited financial statements by the post-auction deadline.

and thus would inhibit their participation in the bidding process. ACA and WISPA submitted an alternative proposal in their *ex parte* letter and have spent the past month refining that proposal.

In this filing, ACA and WISPA propose the following alternative criteria to identify banks that could issue acceptable LoCs for SESPs: the bank should be FDIC or FCSIC-insured and should meet the "Well-Capitalized" Prompt Corrective Action ("PCA") threshold under Basel III Capital Adequacy Standards.⁴ As discussed below, compared to the criteria proposed by the Commission, these criteria would expand the pool of banks permitted to issue a LoC from 63 to 6,195 banks and provide more reliable and verifiable indicators of bank viability (from an annual failure rate of rate 0.79% over the past 10 years to 0.24% over same period). This should provide the Commission with comfort that it would, in the event of a default by a CAF recipient, be able to draw on the LoC. It should take even further comfort in knowing that when the low risk of a "Well-Capitalized" FDIC-insured bank failing is combined with the low risk of a CAF Phase II winning bidder not meeting its obligations, the odds of both events happening simultaneously are near zero.

• FDIC insurance has proven to be a valid indicator of a lending institution's creditworthiness, and SESPs have relationships with banks meeting this criterion.

ACA and WISPA agree with the Commission that LoCs for winning bidders must be obtained from a lending institution that is FDIC-insured because it is a valid indicator of a bank's credit-worthiness.⁵ The FDIC undertakes a rigorous process to evaluate the liquidity and solvency of deposit-taking institutions, and it assesses member banks' insurance premiums accordingly. As a result, the annual failure rate for FDIC-insured banks has been only 0.69% per year over the past 10 years.⁶

Additionally, in the event that an FDIC-insured bank fails, the FDIC solicits bids from prospective acquiring institutions and is almost always able to re-open the bank under the new acquirer. This happened with all 518 FDIC-insured banks that failed from 2006-

The Commission may consider using this alternative approach for just smaller providers but ACA and WISPA believe the proposal should be available to all providers.

While this analysis focuses on FDIC insurance, ACA and WISPA agree with the Commission that FCSIC insurance provides protection equivalent to that indicated by holding FDIC-insured deposits. *See Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Report and Order and Further Notice of Proposed Rulemaking, FCC 14-98, ¶ 60 (July 14, 2014).

⁶ See Appendix Item 2 for full methodology details.

2015,⁷ including all banks that failed during the financial crisis of 2007-2009.⁸ When banks are acquired, all deposits are transferred. Liabilities, such as LoCs, also can be transferred.⁹

Use of the FDIC-insured criterion would provide a deep pool of banks from which SESPs could obtain a LoC. As of the third quarter of 2015, there were 6,279 FDIC-insured banks. From discussions with their members, ACA and WISPA know that many SESPs have banking relationships with smaller banks, particularly community banks that serve their service areas. To the extent these smaller banks are FDIC-insured and meet other criteria discussed herein, SESPs should be able to rely on existing banking relationships to obtain a LoC.

Given the reliability of lending institutions that are FDIC-insured and use of these banks by SESPs, ACA and WISPA support requiring any bank issuing a LoC to be FDIC-insured.¹⁰

• Asset size has not proven to be a good indicator of financial viability over the last 10 years, and use of the "top 100" criterion would severely limit the pool of banks with whom SESPs have relationships.

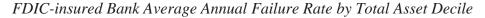
The FDIC's positive record stands in contrast to that of the Federal Home Loan Bank Board ("FHLBB") and Federal Savings and Loan Insurance Corporation ("FSLIC") during the Savings and Loans Crisis of the 1980s and 1990s. During that time, the number of federally insured thrift institutions declined by almost half, from 3,234 to 1,645, bankrupting the FSLIC. The eventual cost to taxpayers to resolve the failed thrifts was estimated to be as much as \$132 billion. Additionally, other non-deposit-taking lending institutions, such as mutual funds, are not protected by the same resolution regime as FDIC-insured banks.

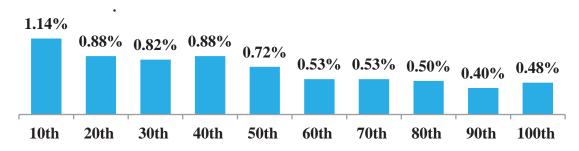
During this period, the FDIC was able to secure 100% of insured deposits under the FDIC limit despite massive levels of mortgage default and historically anomalous levels of bank failure. It did so without seeking or needing a taxpayer-funded bailout, paying for all liquidations or transfers of bank assets and liabilities out of federal deposit insurance premiums.

It is generally in the interest of the acquiring bank to honor or reissue the LoC so as to maintain the business of the customer.

ACA and WISPA do not object to the proposal of the National Rural Utilities Cooperative Finance Corporation and its affiliate, the Rural Telephone Finance Cooperative, that these Cooperative Finance Corporations be eligible to issue LoCs because of their financial viability, even though they are not FDIC-insured banks. *See* Letter from John T. Nakahata, Counsel to CFC, to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 *et al.* (Nov. 6, 2015).

Being a top 100 bank (by assets) is not indicative of an FDIC-insured bank's viability. An analysis of bank failures and asset size over the last 10 years shows that being a top 100 (or even top 50) bank did not eliminate – or even mitigate – the risk of failure. Over that time, nine top 100 banks failed, which is an annual failure rate of 0.9% per year. This stands in contrast to the 0.69% bank failure rate for all FDIC-insured banks. Asset size generally has an inverse relationship to bank failure. Banks in the top five deciles by asset size were more likely to fail than those in the bottom five deciles collectively and individually. 13





In addition to its flaws as an indicator of failure risk, use of the top 100 criterion makes the vast majority of FDIC-insured banks (6,179, or 98.4% of FDIC-insured banks) ineligible to provide a LoC, including nearly all lending institutions with which SESPs have relationships. For these reasons, ACA and WISPA believe the Commission should not require that SESPs obtain a LoC from only an FDIC-insured top 100 bank.

During this period, the following banks failed (total asset rank one year before failing): Washington Mutual (6), IndyMac Bank (49), Colonial Bank (58), AmTrust Bank (79) Guaranty Bank (83), Westernbank Puerto Rico (84), BankUnited FSB (89), United Commercial Bank (91), and Downey Savings and Loan Association, F.A. (94).

See Appendix Item 3 for full methodology details.

Total asset percentiles were calculated based on the

Total asset percentiles were calculated based on the total asset position of the failed bank in the reporting period closest to, but less than, 365 days prior to failing. A total asset rank was then determined by comparing the asset position of the failed bank against all active banks in the aforementioned period. Percentile groups are based on evenly-sized decile range distributions of the average total number of banks active in a given year over the 10 year period (7,531). The average annual failure rate represents the total number of failed banks in a given percentile group as a proportion of the 7,531 average annual banks, then annualized (n=10).

• Investment-grade credit ratings from major ratings agencies are an adequate, albeit not foolproof, indicator of bank viability, but use of this criterion significantly limits the pool of banks that can issue LoCs.

Investment-grade credit ratings are an adequate, but not foolproof, indicator of bank viability. Of the nine top 100 banks that failed in the last 10 years, five had an investment-grade credit rating from a major ratings agency one year prior to failing. This group includes Washington Mutual, the largest and highest credit rated of the top 100 banks that failed. This translates into an annual failure rate of 0.79% per year for top 100 banks with investment-grade credit ratings. If the pool is expanded beyond the top 100 banks to all FDIC-insured banks, the annual failure rate for investment-grade credit-rated banks is between 0.16% and 0.79%.

Unlike federal deposit insurance, banks do not pursue credit ratings to ensure the solvency of their deposits but rather to raise capital. Except in rare instances, banks cannot receive a credit rating without paying a ratings agency to rate them. Most small banks do not pursue credit ratings because they do not raise capital in the public debt markets. Therefore, the use of credit ratings as a criterion for bank qualification suffers from a selection bias against banks that have no need and thus have not pursued and paid for a credit rating. ¹⁸

The other four banks that failed among the top 100 banks were not rated one year prior to their failing.

The uncertainty in the rate is due to the lack of aggregated publicly available data from major credit ratings agencies about historical credit ratings. This is in contrast to the aggregated, highly transparent and public data the FDIC publishes about banks it insures. *See* Appendix Item 5 for full methodology details.

Notwithstanding the fact that investment-grade credit ratings have been an adequate indicator of bank financial health, policymakers have expressed concerns about the shortcomings of credit ratings and have been cautious about using them to assess the credit risk of bank-issued securities. In July 2010, Congress directed federal regulators as part of the Dodd-Frank Act to remove references to or requirements of reliance on credit ratings from its regulations and to substitute alternative standards of credit-worthiness. In August 2010, the Federal Reserve Board ("FRB") along with other banking agencies formed a working group to develop alternative standards of credit-worthiness. The immediate focus was to replace use of credit ratings in risk-based capital standards. To the extent possible, these standards were to be used as a basis to substitute for credit ratings in other FRB regulation. In 2014, the Securities and Exchange Commission ("SEC") implemented measures to limit the conflict of interest inherent in a business model where rating agencies rate their own customers (i.e. banks). Nonetheless, in a

Washington Mutual was the sixth largest bank by total assets one year prior to failing and received credit ratings of A and A1 from S&P and Moody's, respectively.

See Appendix Item 4 for full methodology details.

As with use of asset size as a criterion for financial viability, use of credit ratings would greatly limit the pool of eligible institutions. There are less than an estimated 350 FDIC-insured banks (fewer than 6% of all FDIC-insured banks) that receive credit ratings of any level from major ratings agencies. If the investment-grade credit rating criterion is coupled with the top 100 bank criterion, the number of eligible banks is reduced to 63, making it even more difficult for SESPs to find a bank willing to issue a LOC. A requirement that a bank have an investment-grade credit rating excludes nearly all of the lending institutions with whom SESPs have relationships. Accordingly, ACA and WISPA believe the Commission should use an alternative criterion to investment-grade credit rating to identify banks eligible to issue a LoC.

• The "Well-Capitalized" PCA threshold under Basel III Capital Adequacy Standards is at least as good an indicator of bank viability as investment-grade credit ratings, and SESPs have relationships with banks that meet this criterion.

In response to the 2007-2009 financial crisis, the Basel Committee on Banking Supervision ("BCBS") – a group of global banking authorities¹⁹ – designed a new voluntary standard, referred to as Basel III, to target banks' capital adequacy, stress testing, and market liquidity.²⁰ This standard was adopted by financial regulators in the

recently issued report, the staff of the SEC found continuing problems with ratings provided by credit rating agencies. *See* "2015 Summary Report of the Commission Staff's Examination of Each Nationally Recognized Statistical Ratings Organization ("NRSRO")," *Report of the Staff of the U.S. Securities and Exchange Commission* (Dec. 2015).

BCBS was originally formed by the central bank governors from G10 countries in 1974 to promote a global standard in banking supervisory matters following financial market turmoil in 1973. Since its founding, the Committee has expanded its membership to include banking regulatory institutions of 28 countries. In 1998, the BCBS approved the Basel Capital Accord which applied capital ratio requirements to banks internationally. This framework was adopted by virtually all countries with active international banks.
 BCBS recommended a replacement for its set of capital guidelines intended to increase bank's ability to withstand future financial crises. The following ratios were targeted by Basel III to ensure that the banks maintain strong capital positions encompassing more and higher quality capital:

- Tier 1 Capital Ratio: Tier 1 (core) capital as a percent of risk-weighted assets as defined by the appropriate federal regulator for prompt corrective action during that time period.
- Common Equity Tier 1 Capital (CET1) Ratio: The ratio of common equity tier 1 capital to risk-weighted assets.

> European Union and U.S. and serve as a strong indicator of bank viability.²¹ In the U.S., Basel III provides federal banking regulators with improved standards²² to assess bank capitalization and to identify banks that could be at risk in the event of economic stress or financial crisis. 23 U.S. regulators monitor bank capitalization based on a series of PCA thresholds – a five point scale ranging from "Critically Undercapitalized" to "Well-Capitalized." ²⁴ Banks must satisfy one of the top two thresholds, either "Adequately Capitalized" or "Well-Capitalized," to avoid negative regulatory implications. ²⁵ When a bank falls to the level of "Critically Undercapitalized" PCA, it risks FDIC intervention. ACA and WISPA propose that banks must adhere to the strictest capital threshold of "Well-Capitalized" to be eligible to issue a LoC.

Over the past 10 years, FDIC-insured banks that met the "Well-Capitalized" threshold failed at the very low average annual rate of 0.24%, ²⁶ which improves upon the already low 0.69% per year failure rate of banks that are only FDIC-insured. The "Well-

Total Capital Ratio: Total risk based capital as a percent of risk-weighted assets as defined by the appropriate federal regulator for prompt corrective action during that time period.

Tier 1 Leverage Ratio: Tier 1 (core) capital as a percent of average total assets minus ineligible intangibles.

21 The Basel III final rule for U.S. banking institutions was approved in 2013 by the FRB, FDIC, and the Office of the Comptroller of the Currency ("OCC").

22 Minimum capital ratios have been required in U.S. banking regulation since 1981.

23 The new minimum capital thresholds took effect on January 1, 2015 and require banks meet the following: Common Equity Tier 1 Capital $\geq 4.5\%$, Tier 1 Capital $\geq 6.0\%$, Total Capital $\geq 8.0\%$, and Tier 1 Leverage Ratio $\geq 4.0\%$. A capital conservation buffer, which increases the capital requires by 2.5% (Tier 1 Leverage will remain at 4%) will be phased in by the FDIC from 2016-2019. The buffer, which is designed to incentivize banks to hold the necessary capital to weather systemic financial crises, will require banks to maintain common Tier 1 equity above the minimum capital threshold or face restrictions in the payment of dividends, share buybacks, discretionary payments on Tier 1 instruments and discretionary bonus payments. The new minimum capital requirements put an emphasis on common equity and raised the overall Tier 1 equity component from 4.5% to 6% in 2015. While the total capital ratio was unchanged from the previous standard in 2015, the composition must now favor Tier 1 equity.

24 A bank is considered to be "Well-Capitalized" if it meets the following criteria: Common Equity Tier 1 Capital > 6.5%, Tier 1 Capital > 8.0%, Total Capital > 10.0%, and Tier 1 Leverage Ratio $\geq 5.0\%$.

25 Undercapitalized banks, as determined by PCA thresholds, are barred from paying dividends or management fees, cannot accept, renew, or roll over any brokered deposit, and may not solicit any other deposits by offering an effective yield that exceeds by more than 75 basis points the effective yield paid on deposits of comparable size and maturity. 26

See Appendix Item 1 for full methodology details.

Capitalized" threshold for FDIC-insured banks outperforms the 0.79% per year failure rate for top 100 banks with investment-grade ratings and is comparable to the lower end of the failure rate range among all investment-grade rated banks (0.16% to 0.79%).

Further, since 6,195 (98.7%) of 6,279 FDIC-insured banks in the third quarter of 2015 were deemed "Well-Capitalized," including most that have relationships with SESPs, use of this standard to identify banks eligible to issue LoCs will facilitate participation by smaller providers in the auction. ²⁷

In sum, use of the "Well-Capitalized" standard would significantly expand the pool of eligible banks that can issue a LoC to a winning bidder, while eliminating most of the banks whose solvency is not beyond question.

• Accepting a LoC from a bank that is FDIC-insured and "Well-Capitalized" will provide better protection from bank failures and expand the pool of banks permitted to issue a LoC, enabling SESPs to participate in the auction.

ACA and WISPA propose the Commission accept LoCs from FDIC-insured banks that are "Well-Capitalized." As discussed, these criteria result in a very low historic average annual failure rate of 0.24%, which is significantly better than the 0.79% per year failure rate for top 100 FDIC-insured banks with investment-grade ratings. When the low risk of a "Well-Capitalized" bank failing is combined with the low risk of winning bidder failure, the joint probability of default on a LoC is near zero. Equally as important, these criteria increase the number of banks eligible to issue a LoC from 63 to 6,195, enabling SESPs to participate in the auction and helping to ensure that support is distributed cost-effectively. ²⁸

The Commission should not be concerned that the expanded pool of banks eligible under our methodology will issue financially draining LoCs. Because of government oversight and investor concern, banks perform extensive due diligence on LoC applicants and at times require up to 100% collateral in liquid assets. A bank's LoC decision also factors in the potential impact on the bank's financial position. It would be irrational for a bank to offer a LoC that over-extends its capital and liquidity positions.

The ACA and WISPA proposal will provide equal, if not better, protection for the government's support than the requirements of the Rural Utilities Service programs, which include a range of controls to minimize the risk of participant failure or non-performance. None of these programs, however, imposes a requirement at any stage of the process that applicants provide a LoC equivalent to the value of the funding award. While some programs require applicants to put up their network assets and operations as collateral, this requirement is actually less restrictive than a LoC, as some banks do not issue LoCs without proof of liquid assets equivalent to the value of the LoC – and network assets and operations are not consistently considered liquid assets by banks, especially in less economically viable areas.

This letter is being filed electronically pursuant to Section 1.1206 of the Commission's rules.

Respectfully submitted,

American Cable Association

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APPENDIX

The analysis used historical data on bank failure and financial performance available through the FDIC website.²⁹ Therefore, the analysis was limited to the universe of FDIC-insured banks. All failure rates follow the same format. The numerator is the number of failed banks based on the specified criteria, as an annual average across the 10 year period from 2006-2015. The denominator is the average number of banks meeting the criteria across the period. The average annual failure rate is the numerator divided by denominator. Bank performance was evaluated with respect to the criteria of interest at the one year mark prior to the bank's failure, which is based on research from the Federal Reserve Bank of St. Louis indicating that capital depreciation can first be noticed seven quarters before a bank fails but is not pronounced until roughly a year before failure.³⁰

Failure Rates by Standard

Standard	Annual Failure Rate	Pool of Eligible Banks ³¹
1. "Well-Capitalized"	0.24%	6,195
2. FDIC-insured	0.69%	6,279
3. Top 100	0.90%	100
4. Top 100, Investment Grade	0.79%	63
5. Investment Grade	0.16 – 0.79%	63-322

1. For the failure rate among "Well-Capitalized" banks, the numerator is 17.2 and the denominator is 7,299.³² The numerator refers to the number of failed banks that were "Well-Capitalized" one year prior to failing, averaged across the 10 year period.³³ The denominator refers to the average number of "Well-Capitalized" banks each year. This resulted in the average annual failure rate of 0.24% among "Well-Capitalized" banks.

Since the capital ratios used to determine capitalization are available on a quarterly basis, failed bank performance was observed in the quarterly report closest to but less than one

For all available FDIC data, *see* "Data Download," Federal Deposit Insurance Corporation, *available at* https://www5.fdic.gov/idasp/warp_download_all.asp.

See "Earliest Indicator of Bank Failure Is Deterioration in Earnings," Federal Reserve Bank of St. Louis available at https://www.stlouisfed.org/publications/central-banker/spring-2010/earliest-indicator-of-bank-failure-is-deterioration-in-earnings.

The number of eligible banks is based on "O3 2015" data.

In total, 172 "Well-Capitalized" banks failed over the 10 year period.

Since Common Equity Tier 1 Capital was not required to be isolated from Tier 1 Capital under the previous Basel II standard and therefore could not be measured prior to 2013, it was not included in this analysis. Instead, Tier 1 Capital, Total Capital, and Tier 1 Leverage were used to assess whether a bank was "Well-Capitalized."

year (365 days) prior to its failure. On average, this resulted in an analysis 315 days prior to the banks failure.

- 2. For the failure rate among FDIC-insured banks, the numerator is 51.8 and the denominator is 7,531.³⁴ The numerator refers to the number of FDIC-insured banks that failed, averaged across the 10 year period. The denominator refers to the average number of FDIC-insured banks each year. This resulted in the average annual failure rate of 0.69% among FDIC-insured banks.
- 3. For the failure rate among top 100 banks, the numerator is 0.9 and the denominator is 100.³⁵ The numerator refers to the number of failed banks that were in the top 100 by assets one year prior to failing, averaged across the 10 year period. The denominator refers to the top 100 banks by assets. This resulted in the average annual failure rate of 0.9% among top 100 banks.
- 4. For failure rate among top 100, investment-grade banks, the numerator is 0.5 and the denominator is 63.³⁶ The numerator refers to the number of failed banks that were in the top 100 by assets and recieved an investment-grade credit rating one year prior to failing, averaged across the 10 year period. The denominator refers to number of top 100 banks by assets that received investment-grade credit ratings from Moody's in the third quarter of 2015. This resulted in the average annual failure rate of 0.79% among top 100 investment-grade banks.

Since asset position is available on a quarterly basis, failed banks rank was observed in the quarterly report closest to, but less than, one year (365 days) prior to its failure. On average, this resulted in an analysis 315 days prior to the banks failure. Credit ratings for failed top 100 banks were available in an S&P report at the one-year mark prior to failing. Therefore, the timeframe of the asset rank and credit rating are closely, but not perfectly, aligned. However, the failed banks are also in the top 100 by assets in the period closest to, but greater than, one-year prior to failing. Therefore, the slight discrepancy in timeframe does not bias the numerator of top 100, investment-grade banks that failed.

Historic credit ratings from major ratings agencies are not publicly available in a centralized database. Therefore, the number of top 100 banks with investment-grade credit ratings from Moody's as of the current period was used as a proxy for the historical count. Given the more benign current financial conditions and the increased attention paid to capital ratios after the financial crisis of 2007-2009, it is likely that the number of

In total, 518 FDIC-insured banks failed over the 10 year period.

In total, nine top 100 banks failed over the 10 year period.

In total, five top 100, investment-grade banks failed over the 10 year period.

investment-grade credit-rated top 100 banks today is at or near a historical high. Therefore, the size of the denominator (63) is likely as large as it has ever been.

5. For failure rate among investment-grade banks, the numerator is 0.5 and the denominator is between 63 - 322.³⁷ The numerator refers to the number of banks that recieved an investment-grade credit rating one year prior to failing, averaged across the 10-year period. The denominator refers to number of banks that received investment-grade credit ratings from Moody's in the third quarter of 2015. This resulted in the average annual failure rate between 0.16 - 0.79% among investment-grade banks.

As mentioned above, historic credit ratings from major ratings agencies are not publicly available in a centralized database. Credit ratings could be researched on a case-by-case basis on the websites of the major ratings agencies. For the top 100 banks by assets that failed, the analysis established that five received investment-grade credit ratings one year prior to failing. The top 300 banks by assets that failed were then analyzed, and no additional banks within the expanded group received any credit rating from Moody's. Because large banks tend to obtain credit ratings for the purposes of raising capital, it is unlikely that the numerator is understated.

The denominator was uncertain due to the lack of a publicly available database of historical credit ratings. As a lower bound, 63 of the top 100 banks by assets are investment grade as of the third quarter of 2015. There is additional data from Moody's that suggests a total of 322 banks currently hold investment-grade ratings. However, there are some limitations to this figure. First, the credit ratings are not all assessments of long-term issuances as required by the current FCC proposal. Further, the 322 may not have been active across the entire 10 year period (*e.g.* rating was initiated in 2015), or they may not have been investment-grade across the whole period (*e.g.* fell below investment grade for some period during the financial crisis).

As a result of the data limitations in both the numerator and denominator, a range is the most appropriate representation for the annual failure rate among investment-grade credit-rated banks.

³⁷